

ABSTRACT

An optical header for coupling a light source to an optical fiber is disclosed. The header preferably includes a ceramic substrate that has a recess for a vertical cavity surface emitting laser (VCSEL), or alternatively an edge emitting laser. An optical fiber is preferably attached to a ceramic substrate and terminates at a light source. The end of the fiber is preferably cleaved or polished to an angle such that light entering the fiber from the light source is substantially reflected into the fiber. A reflective coating is placed on the cleaved end of the fiber thereby permitting a small percentage of light to radiate away from the fiber and toward an intensity detector. The light preferably travels to the detector through a transmission medium such as a prism or an optical-grade epoxy. The header is particularly useful when used in conjunction with multiple fibers simultaneously to form an optical fiber array. The header is also useful to house an optical receiver, or to form a bi-directional header suitable for fiber optic communications.